Attachment 3

Examples of Conditions of Approval (COAs) for Permit Authorizations

Pit Construction

1. All construction of the well pad, flare pit, reserve pit, roads, flowlines, production facilities and all associated infrastructure on federal lands will be inspected or monitored onsite by a designated qualified inspector (to be named at the time of construction notification), who will serve as the Operator's Compliance Coordinator to ensure construction meets the BLM-approved plans.

2. If ground water, permeable/porous subsoil or bedrock is encountered upon construction of the pad or pits, or upon drilling and completing shallow holes for surface conductor, rat/mouse holes, or water supply well, the Operator must immediately notify the BLM Authorized Officer (AO) before proceeding.

3. Reserve pits will be adequately fenced during and after drilling operations until pit is reclaimed so as to effectively keep out wildlife and livestock. Adequate fencing, in lieu of more stringent requirements by the surface owner, is defined as follows:

    a. Construction materials will consist of steel and/or wood posts. Three or four strand wire (smooth or barbed) fence or hog panel (16-foot length by 50-inch height) or plastic snow fence must be used with connectors such as fence staples, quick-connect clips, hog rings, hose clamps, twisted wire, etc. Electric fences will not be allowed.
    b. Construction standards: Posts shall be firmly set in ground. If wire is used, it must be taught and evenly spaced, from ground level to top wire, to effectively keep out animals. Hog panels must be tied securely into posts and one another using fence staples, clamps, etc. Plastic snow fencing must be taught and sturdy. Fence must be at least 2-feet from edge of pit. Three sides must be fenced before beginning drilling, the fourth side fenced immediately upon completion of drilling and prior to rig release. Fence must be left up and maintained in adequate condition until pit is closed.
    c. If the pit is constructed and left open for more than one week prior to arrival of the drilling rig, the pit shall be fenced on all four sides. One side will then be temporarily laid down or removed for the duration of drilling operations, to be re-built upon removal of the drilling rig.

    (See WO-IM-2013-033 – Reducing Preventable Causes of Direct Wildlife Mortality for current guidance)

4. The flare pit is to be constructed/oriented so that the flare does not ignite the reserve pit liner and large enough so that the blowdown from the flare does not escape the flare pit.

5. The reserve pit will be lined with an impermeable liner having a hydraulic conductivity less than 1×10^{-7}cm/sec and at least 12 mils thick. The liner will be installed to prevent

leaks and will be chemically compatible with all substances that may be put in the pit. Liners made of any man-made synthetic material will be of sufficient strength and thickness to withstand normal installation and pit use. In gravelly or rocky soils, a suitable bedding material such as sand or felt will be used prior to installing the liner. The liner must be installed no more than one month prior to commencing drilling activities.

6. A permanent marker shall be installed in the reserve and/or completion pit (either on the liner or on a post or other structure in the center of the pit) that identifies the level at which 2 feet of freeboard remains in the pit.

Reserve or Completion Pit Operations

1. Only those wastes that qualify as exempt, under the Resource Conservation and Recovery Act (RCRA), Oil and Gas Exemption, may be disposed of in the reserve pit. Generally, oil or gas wastes are exempt if they: 1) have been sent down hole and then returned to the surface during oil/gas operations involving exploration, development, or production; or 2) have been generated during the removal of produced water or other contaminants from the oil/gas production stream.

2. In the event down hole operations threaten to or cause fluid levels in the reserve pit to encroach on the required 2-foot freeboard, immediate notification shall be provided to the Authorized Officer or his representative with concurrent steps taken to minimize the introduction of additional fluids until alternative containment methods can be approved.

3. Flaring of gas into the reserve or completion pits will not be allowed.

4. All pits shall be kept free of trash and accumulations of liquid hydrocarbons. Any evidence of RCRA non-exempt wastes present in the reserve pit will result in the BLM Authorized Officer requiring specific testing and closure procedures.

5. All pits are required to maintain 2 feet of freeboard. If operations cause fluid levels in pits to rise (or threaten to) above the required freeboard, immediate notification shall be provided to the Authorized Officer with concurrent steps taken to cease the introduction of additional fluids, until alternative containment methods can be approved.

6. For the protection of livestock and wildlife, all pits and open cellars shall be fenced on all sides, and with corner bracing, immediately upon construction. Reserve, flare, completion, and production pits will be adequately fenced during and after drilling operations until pits are reclaimed so as to effectively keep out wildlife and livestock. Approved netting (in accordance with the requirements, below) is required over any pit that contains or is identified as containing hydrocarbons or RCRA-exempt hazardous substances as determined by observation or testing. Netting requirements:

    a. Maximum netting mesh spacing is 1 ½-inch on any side.
    b. Netting shall be suspended at least four feet above the pit contents.

c. A rigid structure made of steel and cable (at no more than 7-foot intervals across the pit) shall be used.
d. Netting shall be secured at the ground surface around the entire pit to prevent wildlife entry at the netting edges.
e. The operator shall conduct frequent monitoring of the netting and maintenance (as required) to ensure continued function of the netting.
f. Drying and/or removal of oil and/or hazardous substances from the pit will eliminate the need to maintain netting of the pit.

7. Oil is not permitted to be discharged into pits without prior written approval of the BLM Authorized Officer. Any oil that is inadvertently put into the reserve pit during drilling operations or up to the time of pit closure will be immediately (no longer than within 48 hours) removed by the operator.

8. All waste, other than human waste and drilling fluids, will be contained in a portable trash cage. This waste will be transported to an authorized commercial waste disposal or treatment facility immediately upon completion of drilling operations. No trash or empty containers will be placed in the reserve pit or buried on location. All state and local laws and regulations pertaining to disposal of human and solid waste will be complied with.

9. The produced fluids (produced water, frac fluid, or condensate), while testing the well will be flowed back to a 400 bbl. (minimum) flowback tank. Any liquid hydrocarbons, including condensate, will be skimmed, or hot-oiled, and transferred to production tanks. Sand and produced fluids other than condensate will be transferred to the reserve pit until such time as the well is cleaned up sufficiently to produce pipeline quality gas. Any spills of oil, gas, salt-water or other produced fluids will be reported to the BLM in accordance with NTL-3A and cleaned up.

10. Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.

11. Pit liners shall be inspected by the operator during operations and while pit fluids are drying, to ensure that the liner remains intact throughout operations.

Oil-Base Mud Operations

1. Mud hoses will be new or like new with hydraulically crimped-on hose ends, and no king nipples or hose clamps will be allowed.

2. All oil-base mud drilling operations should be completed through a closed mud system and all oil-base mud contained in the closed system. However, the use of a lined pit for oil-base mud and cuttings may be approved.

3. The closed drilling system shall be equipped with appropriate drip pans, liners and catchments under probable leak sources as needed to prevent the oil-base drilling mud and cuttings from reaching the reserve pit and/or ground surface of the drill pad.

4. Any cuttings dropped or mud spilled shall be immediately cleaned up and placed in the approved containment device. All spills in excess of one barrel outside the containment devices will be reported to the BLM within eight hours.

5. The operator shall exercise extreme caution to avoid discharging oil-base drilling mud into the reserve pit. Should an event occur where it is necessary for oil-base mud to be discharged to the reserve pit, the Operator shall immediately initiate the following actions:

    a. The reserve pit shall be secured to prevent birds and other wildlife from getting into the oil-contaminated cuttings, fluids, and mud.
    b. The Operator shall submit a plan to the BLM Field Office describing how the contaminated pit will be managed (i.e., will the contaminated material/fluids be treated in place, and if so by what method; or will the contaminants be removed to an authorized commercial disposal or treatment facility).
    c. Submit a Sundry Notice describing how the oil-contaminated drill cuttings will be treated to ensure the oil stays contained in the cuttings and where the cuttings will be ultimately be stored (i.e., buried in the flare pit, buried in a separate on-location pit, or removed and transported to an authorized commercial disposal or treatment facility). Any on-location disposal sites for the oil-contaminated drill cuttings shall be lined with a 20 mil, or thicker, impervious liner compatible with oil. A liner meeting this specification shall also be placed under any temporary storage area for the oil-contaminated cuttings.

6. Prior to skidding or moving the drill rig to another well or well pad, the pumps, pump lines and tanks shall be cleaned to ensure that no oil-base mud is in the system during surface drilling operations of the new well.

7. Install and maintain siphons, catchments, and absorbent pads to keep hydrocarbons produced by the drill rig from entering the reserve pit. Ensure that hydrocarbons and contaminated pads are disposed of in accordance with other state and federal requirements.

8. A geo-membrane liner with a minimum thickness of 20 mils shall be properly installed and maintained in the reserve pit. The geo-membrane liner shall consist of a string reinforced impervious synthetic material, resistant to hydrocarbons, salts and alkaline

solutions. The liner shall be protected from fluid force or mechanical damage at points of discharge or suction.

9. Weekly inspections of pits and liners shall be conducted and documented until reclaimed.

Pit Closure and Reclamation

1. Pits are to be dried within six (6) months from the date the well is spud or the date of well completion and prior to any backfilling (Onshore Oil and Gas Order No. 1). Trenching or squeezing of pit fluids and cuttings is prohibited. Drying by any means other than natural (air) evaporation requires prior approval from the BLM. Pit solids shall be buried at least 3 feet below re-contoured grade. Soils that are moisture laden and saturated, partially or completely frozen shall not be used for backfill or cover. The pit area shall be mounded to allow for settling. Before backfilling synthetically lined reserve pits; those liner portions remaining above the "mud line" shall be cut off as close to the top of the mud surface as possible and disposed of at an approved solid waste disposal facility. Avoid trenching, puncturing or perforating the pit bottom and remaining liner.

2. The burning of hydrocarbons and/or other wastes within pits is prohibited.

3. All E&P materials, including drill cuttings, shall be contained in steel tanks or an approved pit containing a synthetic liner until it can be demonstrated such materials meet UDOGM stands for abandonment. E&P materials, such as drilling cuttings, shall conform to the following UDOGM standards prior to landfarming: Electrical Conductivity < 4 mmho/cm, Hydrocarbon Content < 10,000 ppm TPH, and pass a 60-mesh paint filter test.

Mechanical Evaporation of Pits

1. The operator shall monitor operations to mechanically evaporate pits frequently, at least once every two hours, and must ensure that operations and conditions do not result in pit contents being deposited outside of the pool area of the pit.

Note: All COAs must comply with the requirements in Onshore Oil and Gas Orders and those outlined within the attachments of this IM.